REMARKS

Claims 1 – 3, 6 – 11 and 13 - 17 are pending in the present application. Claims 4, 5 and 12 are canceled by the present amendment, and claim 17 is newly added. Applicant is requesting reconsideration of the present application.

In sections 1 – 5 of the Office Action, claims 1 - 16 are rejected under 35 U.S.C. 112, for various reasons relating to recitals of claims 1 and 15. Applicant is amending claims 1 and 15, and believes that the amendments address all of the section 112 issues. Reconsideration and withdrawal of the section 112 rejection are respectfully requested.

In section 6 of the Office Action, claims 1 – 16 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,772,400 to Tsai (hereinafter "the Tsai patent"), and in section 8 of the Office Action, claims 1 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,970,814 to Ashley et al. in view of U.S. Patent No. 6,779,157 to Kondo. Claims 1, 13, 14 and 15 are independent claims. Applicant is amending claims 1, 13, 14 and 15 to clarify aspects of the present invention that are not disclosed by the Tsai patent, and neither disclosed nor suggested by the cited combination of the Ashley et al. and Kondo patents.

In accordance with the preferred embodiments of the present application, a method is provided that allows modeling of an electronic device. Rather than modeling each of the components within the electronic device, the present invention teaches a rather simplified approach in which it is not necessary to develop complicated models. Rather, quite simple circuit models, regardless of the complexity of the circuit to be modeled, can be realized.

To be more specific, in accordance with the present invention, instead of using dedicated models for respective circuit elements of the circuit of interest, the signal response of such an electronic circuit is derived, wherein this signal response is approximated by a linear section-wise

curve, as it is described in detail with regard to Figs. 4 and 5. As is further described in detail with regard to Fig.6, each of the sections of the response shown in Fig. 4 is modeled by a combination of a pulse generator and a voltage source or current source, i.e. a rather simplified circuit model, wherein the pulse duration corresponds to the duration of the respective section being modeled, wherein this pulse controls the current or voltage sources having a trans-conductance representing the slope in the corresponding section of the response. After having determined, for each of the sections, the appropriate pulse generator and the appropriate current or voltage source, the integrating circuit shown in Fig. 6 (at the bottom) is further selected for superimposing all output signals, thereby generating an approximation of the signal response. The selected pulse generators, current or voltage sources as well as the selected integrating circuit are then used to form a model of the electronic device or, for example, by using a conventional size program. As mentioned above, it can be seen in Fig. 4 that a model is built up by eight controlled current sources, which can easily be realized by an electrical circuit of discrete elements or as an integrated circuit and a respective SPICE model of such an electronic circuit is given in Fig. 6.

Claim 1 provides a method. The method include, *inter alia*, (a) receiving a measured electrical signal response, (b) sampling the received measured electrical signal response at a plurality of sampling points and approximating each section of the received measured electrical signal response between two adjacent sampling points by a respective linear curve section. The method further includes (c) for each section of the measured electrical signal response, (i) selecting a pulse unit for generating a pulse having a transition between the two adjacent sampling points associated with the section, and (ii) selecting a current source or a voltage source providing, in response to the pulse from the selected pulse unit, an output signal corresponding to the slope of the section. The method then further includes (d) selecting an integrating unit for superimposing the output signals from each of the selected current or voltage sources for generating an approximated signal response, and (e) creating a model of the electronic device based on the selected pulse units, the selected current or voltage sources and the selected integrating unit.

Neither of (A) the Tsai patent, nor (B) the cited combination of the Ashley et al. and Kondo patents, appears to include any disclosure relating to:

(1) approximating each section of the received measured electrical signal response between two adjacent sampling points by a respective linear curve section

(2) generating a pulse having a transition between the two adjacent sampling points associated with a linear curve section,

(3) selecting a current source or a voltage source providing an output signal corresponding to the slope of the section, or

(4) an integrating unit for superimposing the output signals from each of the selected current or

Consequently, neither of (1) the Tsai patent, nor (2) the cited combination of the Ashley et al. and Kondo patents, discloses:

(b) approximating each section of the received measured electrical signal response between two adjacent sampling points by a respective linear curve section,

(c) for each section of the measured electrical signal response, (i) selecting a pulse unit for generating a pulse having a transition between the two adjacent sampling points associated with the section, and (ii) selecting a current source or a voltage source providing ... an output signal corresponding to the slope of the section,

(d) selecting an integrating unit for superimposing the output signals from each of the selected current or voltage sources for generating an approximated signal response, and

(e) creating a model of the electronic device based on the selected pulse units, the selected current or voltage sources and the selected integrating unit,

as recited in claim 1. Thus, the Tsai patent does not anticipate claim 1, and the cited combination of the Ashley et al. and Kondo patents does not render claim 1 unpatentable.

Claims 2, 3 and 6 – 11, depend from claim 1. By virtue of this dependence, claims 2, 3 and 6 – 11 are also novel over the Tsai patent, and patentable over the cited combination of the Ashley et al. and Kondo patents.

Claims 13, 14 and 15 each include recitals similar to those of claim 1, as described above. Therefore, claims 13, 14 and 15, for reasoning similar to that provided in support of claim 1, are also novel over the Tsai patent, and patentable over the cited combination of the Ashley et al. and Kondo patents.

Claim 16 depends from claim 15. By virtue of this dependence, claim 16 is also novel over the Tsai patent, and patentable over the cited combination of the Ashley et al. and Kondo patents.

Claims 4, 5 and 12 are canceled. As such, the rejection of claims 4, 5 and 12 is rendered moot.

Applicant respectfully requests reconsideration and withdrawal of the section 102(e) and section 103(a) rejections of claims 1 – 16.

As mentioned above, Applicant is amending claims 1 and 15 to address issues under 35 U.S.C. 112, and amending claims 1, 13, 14 and 15 to clarify aspects of the present invention that are not disclosed by the Tsai patent, and not disclosed or suggested by the cited combination of the Ashley et al. and Kondo patents. Applicant is also amending claims 1 – 3, 6 – 11 and 13 - 16 for one or more of (a) consistency with a recital of an underlying claim, (b) ensuring an antecedent basis for terms, (c) improving form, (d) improving grammar, or (e) deleting recitals that do not appear to be necessary for patentability. None of the amendments is intended to narrow the scope of any term of any claim. Therefore, the doctrine of equivalents should be available for all of the terms of all of the claims.

Applicant is adding claim 17 to even further provide the claim coverage that Applicant appears to deserve based on the prior art that was cited by the Examiner. A favorable consideration that also results in the allowance of claims 17 is earnestly solicited.

In view of the foregoing, Applicant respectfully submits that all claims presented in this application patentably distinguish over the prior art. Accordingly, Applicant respectfully requests favorable consideration and that this application be passed to allowance.

Respectfully submitted,

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Date

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